

# Time-history analysis first steps

## Tutorial

|              |                                                      |
|--------------|------------------------------------------------------|
| Name:        | Time-history analysis first steps                    |
| Description: | Overview of the procedure for time-history analysis. |
| Program:     | SAP2000                                              |
| Version:     |                                                      |
| Model ID:    | na                                                   |
|              |                                                      |
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[Time-history](#) analysis may be initiated using the process which follows:

1. Create the model and assign support conditions to restrained [joints](#).
2. Select Define > Functions > Time History to define a time-history function which characterizes load variation over time.
3. Assign load conditions to the model through Assign > Joint Loads or Frame Loads.
4. Define either a [modal](#) or direct-integration time-history [load case](#) through Define > Load Cases.
5. To customize load application, enter, on the Load Case Data form under Load Applied, the following fields:
  - **Load Type.** Select the Load Pattern option.
  - **Load Name.** Select the Load Pattern to be applied.
  - **Function.** Select the time function which characterizes load variation in time.

## See Also

- [CSI Analysis Reference Manual](#) (Linear Time-History Analysis, page 353) *and* (Nonlinear Time-History Analysis, page 403)
- [Verification Examples](#)
- [Example Problems](#)
- [Multi-support excitation](#) article